

## **REMARKS**

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

### **I. CLAIM STATUS AND AMENDMENTS**

Claims 10-27 were pending when last examined.

Claims 18-27 are withdrawn as nonelected subject matter.

Claims 10-17 were examined and rejected.

Claim 10 is amended to define the required first, second, and third gene detection field-effect devices.

Claim 11 is amended to further clarify the nucleic acid probes immobilized on the insulation film of the first and second gene detection field effect devices.

Claim 14 is amended to properly depend on independent claim 10 with respect to the first and second gene detection field-effect devices.

Claim 17 is amended to properly depend on independent claim 10 with respect to the insulation films.

Support for such amendments can be found in the original claims as well as in the specification as filed, for example, pages 4-7.

Claim 12 is cancelled without prejudice.

All amendments are made without acquiescence to the correctness of the Office, and merely to expedite examination.

No new matter has been added.

It is noted that reference "AE" in the 1449 form dated August 2, 2006 was not considered because a translation was not of record. Attached is a translation. Thus, the Examiner is kindly requested to initial the appropriate place next to this reference in the 1449 form and return such to Applicants.

### **II. REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH**

In item (a) on page 3 of the Office Action, claim 10 and 13-17 are rejected under 35 U.S.C. § 112, second paragraph for omitting essential steps. Specifically, the Examiner contends

that the method of claim 10 must provide the three separate field effect devices with or without appropriate immobilized probe molecule. Further, the Examiner asserts that an amendment requiring the contact of the target gene with the three appropriate gene detection field-effect devices (FET) would obviate the instant grounds of rejection.

Additionally, claims 11 and 12 are rejected for requiring two of the three FETs but failing to require the third FET.

Applicants respectfully traverse this rejection as applied to the amended claims.

Specifically, claim 10 has been amended to clearly define the required first, second, and third gene detection field-effect device, wherein a target gene in a sample solution is brought into contact with each of the first, second and third FETs.

Moreover, claim 11 has been amended to clarify the first and second FETs of claim 1 without excluding the third FET. Therefore, amended claim 11 requires the use of the first, second and third FETs in accordance with claim 1.

Claim 12 is cancelled without prejudice.

Accordingly, since the claims have been amended to comply with the Examiner's suggestions, this rejection is overcome and should be withdrawn.

In item (b) on page 3 of the specification as filed, the term "Taq DNA polymerase" is rejected under 35 U.S.C. § 112, second paragraph for failing to clearly set out the metes and bounds of the invention. Specifically, the Examiner contends that it is unclear if the recitation of "Taq DNA polymerase" encompasses the variations of the wild-type *Thermus aquaticus* DNA polymerase enzyme such as Klentaq, Amplitaq, etc.

Applicants respectfully traverse this rejection.

Applicants assert that the Taq DNA polymerase of the present invention is not limited to any specific variation of Taq DNA polymerase. Specifically, since all Taq DNA polymerases have DNA amplification enzymatic properties, any Taq DNA polymerase can be utilized with the claimed invention. Moreover, Taq DNA polymerase is well known in the art as a DNA amplifier. Therefore, a person having ordinary skill in the art would not have to undergo undue experimentation when choosing a Taq DNA polymerase.

Accordingly, since it is apparent from the specification as filed that any Taq DNA polymerase can be used within the scope of the invention, this rejection is overcome and should be withdrawn.

### **CONCLUSION**

In view of the foregoing amendments and remarks, the present application is in condition for allowance and early notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

***The Commissioner is authorized to charge any deficiency or to credit any overpayment associated with this communication to Deposit Account No. 23-0975, with the EXCEPTION of deficiencies in fees for multiple dependent claims in new applications.***

Respectfully submitted,

Yuji MIYAHARA et al.

By: /William R. Schmidt, II/  
William R. Schmidt, II  
Registration No. 58,327  
Attorney for Applicants

Digitally signed by /William R. Schmidt, II/  
DN: cn=/William R. Schmidt, II/, o=WLP,  
ou, email=bschmidt@wenderoth.com,  
c=US  
Date: 2009.08.27 15:11:22 -04'00'

WRS/vah  
Washington, D.C. 20005-1503  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
August 27, 2009